

BALDOR® • RELIANCE 

Product Information Packet

VEM3709T-5

7.5HP,3470RPM,3PH,60HZ,213TC,3646M,TEFC

Part Detail							
Revision:	F	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	36WGS478	CD Diagram:	CD0006	Mfg Plant:	
Mech. Spec:	36H302	Layout:	36LYH302	Poles:	02	Created Date:	05-06-2010
Base:	N	Eff. Date:	08-31-2016	Leads:	3#16		

Specs			
Catalog Number:	VEM3709T-5	Inverter Code:	Inverter Ready
Enclosure:	TEFC	KVA Code:	L
Frame:	213TC	Lifting Lugs:	No Lifting Lugs
Frame Material:	Steel	Locked Bearing Indicator:	Locked Bearing
Output @ Frequency:	7.500 HP @ 60 HZ	Motor Lead Quantity/Wire Size:	3 @ 16 AWG
Synchronous Speed @ Frequency:	3600 RPM @ 60 HZ	Motor Lead Exit:	Ko Box
Voltage @ Frequency:	575.0 V @ 60 HZ	Motor Lead Termination:	Flying Leads
XP Class and Group:	None	Motor Type:	3646M
XP Division:	Not Applicable	Mounting Arrangement:	F1
Agency Approvals:	CSA	Power Factor:	93
	CSA EEV	Product Family:	General Purpose
	UR	Pulley End Bearing Type:	Ball
Auxillary Box:	No Auxillary Box	Pulley Face Code:	C-Face
Auxillary Box Lead Termination:	None	Pulley Shaft Indicator:	Standard
Base Indicator:	No Mounting	Rodent Screen:	None
Bearing Grease Type:	Polyrex EM (-20F +300F)	Shaft Extension Location:	Pulley End
Blower:	None	Shaft Ground Indicator:	No Shaft Grounding
Current @ Voltage:	6.800 A @ 575.0 V	Shaft Rotation:	Reversible

Design Code:	A	Shaft Slinger Indicator:	No Slinger
Drip Cover:	No Drip Cover	Speed Code:	Single Speed
Duty Rating:	CONT	Motor Standards:	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	Starting Method:	Direct on line
Feedback Device:	NO FEEDBACK	Thermal Device - Bearing:	None
Front Face Code:	Standard	Thermal Device - Winding:	None
Front Shaft Indicator:	None	Vibration Sensor Indicator:	No Vibration Sensor
Heater Indicator:	No Heater	Winding Thermal 1:	None
Insulation Class:	F	Winding Thermal 2:	None

Nameplate NP3441L										
CAT.NO.	VEM3709T-5									
SPEC.	36H302S478G1									
HP	7.5									
VOLTS	575									
AMP	6.8									
RPM	3470									
FRAME	213TC				HZ	60			PH	3
SER.F.	1.15		CODE	L	DES	A		CL	F	
NEMA-NOM-EFF	89.5		PF	93						
RATING	40C AMB-CONT									
CC	010A				USABLE AT 208V					
DE	6307				ODE	6205				
ENCL	TEFC		SN							
VPWM INVERTER READY										
CT6-60H(10:1)VT3-60H(20:1)										

Parts List		
Part Number	Description	Quantity
SA194506	SA 36H302S478G1	1.000 EA
RA182093	RA 36H302S478G1	1.000 EA
36CB3000SP	CONDUIT BOX, CAST	1.000 EA
36GS1000SP	GASKET-CONDUIT BOX, .06 THICK #SV-330 LE	1.000 EA
51XB1016A07	10-16 X 7/16 HXWSSLD SERTYB	2.000 EA
11XW1032G06	10-32 X .38, TAPTITE II, HEX WSHR SLTD U	1.000 EA
HW3001B01	BRASS CUP WASHER, FOR #10 SCREW	1.000 EA
36EP3104A04	FR ENDPLATE, FOR ROUTING	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
HW5100A05	WVY WSHR F/205 & 304 BRGS	1.000 EA
36EP3305A03	SPL PU ENDPLATE 182-184TC-ENCL-FOR 307 B	1.000 EA
HW4500A01	1641B(ALEMITE)400 UNIV, GREASE FITT	1.000 EA
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 EA
10XN2520A32	1/4 X 2 HEX HEAD CAP SCR, GRADE 2	4.000 EA
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 EA
51XB1214A16	12-14X1.00 HXWSSLD SERTYB	1.000 EA
36FH4009A103	IEC FH GREASER W/PRIMER	1.000 EA
51XW1032A06	10-32 X .38, TAPTITE II, HEX WSHR SLTD S	3.000 EA
35CB4514GX	CONDUIT BOX LID KIT	1.000 EA
51XW0832A07	8-32 X .44, TAPTITE II, HEX WSHR SLTD SE	4.000 EA
HW2501F21	KEY, 5/16 SQ X 2.375	1.000 EA
HA7000A02	KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA	1.000 EA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 EA

Parts List (continued)		
Part Number	Description	Quantity
HW3200A01	3/8-16X3/4 I-BLT WELDED F/S	1.000 EA
MJ1000A02	GREASE, MOBIL POLYREX EM - 124047	0.050 LB
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.022 GA
36FN3000C01SP	EXFN, PLASTIC, 5.25 OD, .912 ID	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
HA3101A28	THRUBOLT 1/4-20 X 12.500 OHIO ROD	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0006	CONNECTION LABEL	1.000 EA
NP3441L	ALUM SUPER-E VPWM INVERTER READY UL	1.000 EA
36PA1001	PKG GRP, PRINT PK1017A06	1.000 EA
PK3082	STYROFOAM CRADLE	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1200/bx) 3/19	1.000 EA

AC Induction Motor Performance Data

Record # 31190 - Typical performance - not guaranteed values

Winding: 36WGS478-R001	Type: 3646M	Enclosure: TEFC
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Nameplate Data				575 V, 60 Hz: Single Voltage Motor	
Rated Output (HP)	7.5			Full Load Torque	11.4 LB-FT
Volts	575			Start Configuration	direct on line
Full Load Amps	6.8			Breakdown Torque	57.8 LB-FT
R.P.M.	3470			Pull-up Torque	39.8 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	48.1 LB-FT
NEMA Design Code	A	KVA Code	L	Starting Current	72.7 A
Service Factor (S.F.)	1.15			No-load Current	1.86 A
NEMA Nom. Eff.	89.5	Power Factor	93	Line-line Res. @ 25°C	2.26 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	74°C
S.F. Amps				Temp. Rise @ S.F. Load	93°C
				Locked-rotor Power Factor	45
				Rotor inertia	0.205 LB-FT ²

Load Characteristics 575 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	64	85	90	93	94	94	94
Efficiency	86.9	90.6	91	90	88.7	86.5	89.2
Speed	3571	3539	3505	3468	3429	3385	3445
Line amperes	2.51	3.67	5.14	6.74	8.41	10.3	7.74

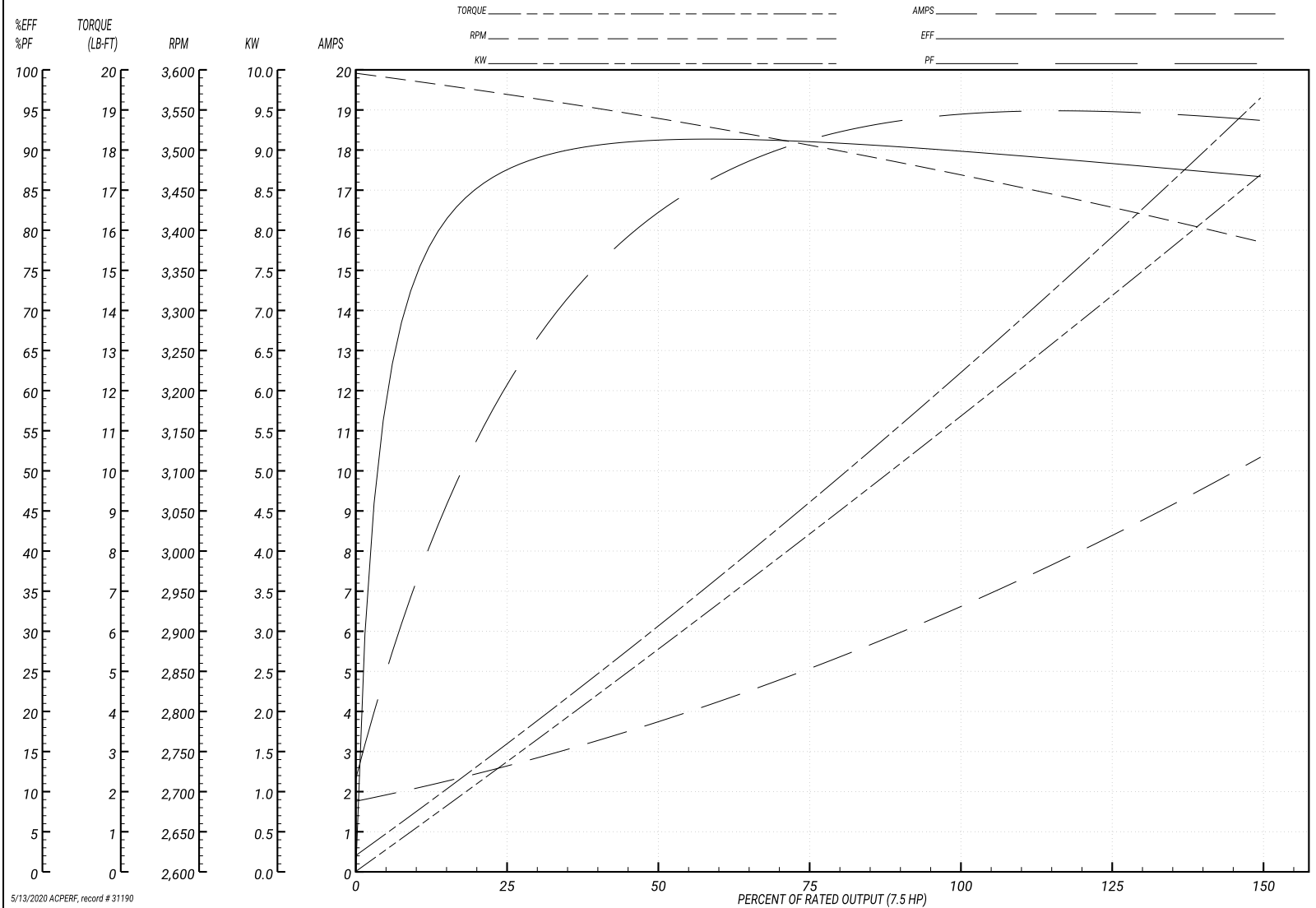
Performance Graph at 575V, 60Hz, 7.5HP Typical performance - Not guaranteed values

ABB Motors and Mechanical Inc.

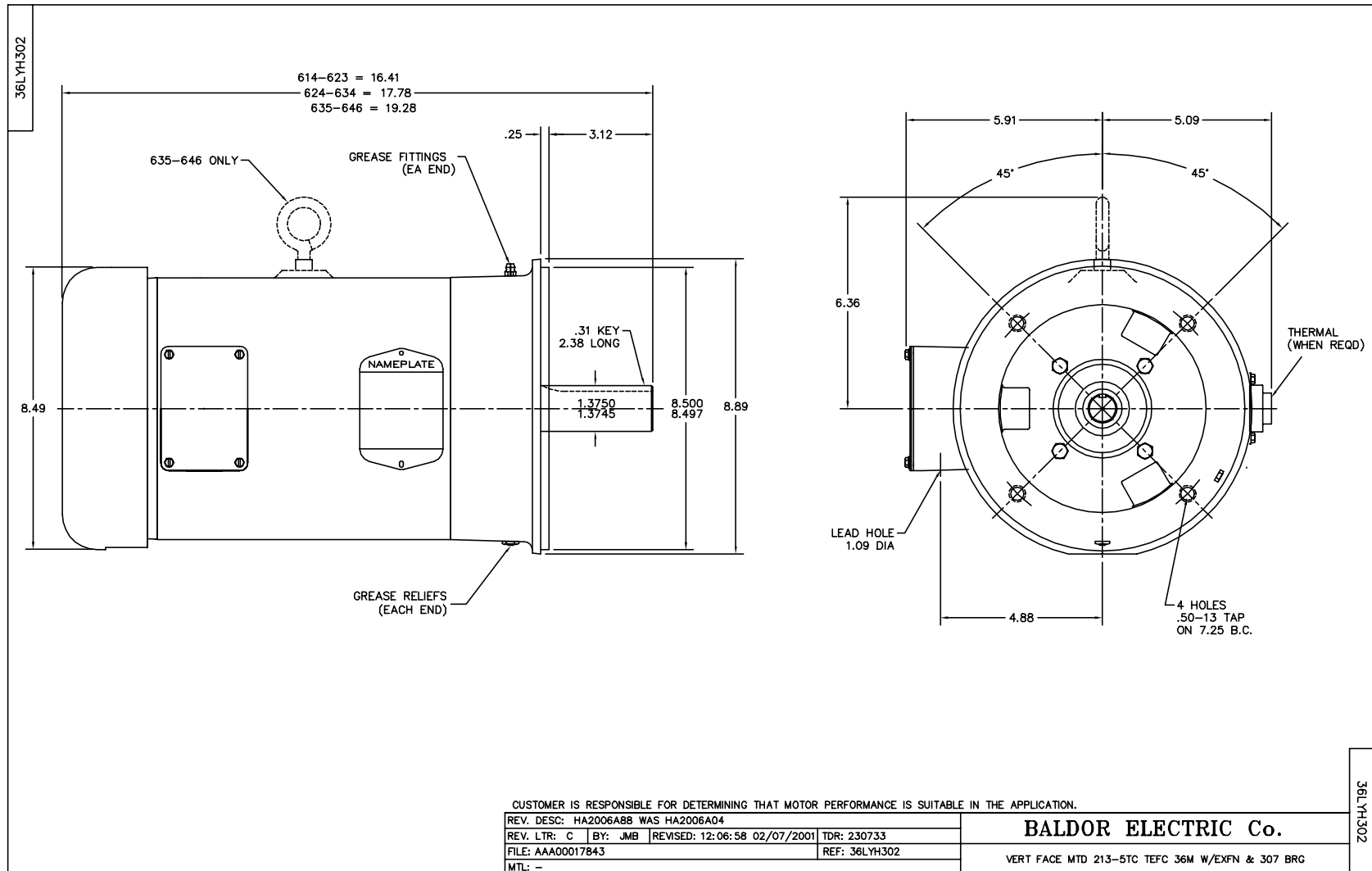
WINDING # 36WGS478

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 3470 RPM 575 V 3646M
 TORQUES(LB-FT): PO=57.8 PU=39.8 LR=48.1 LRA=72.7



5/13/2020 ACPERF, record # 31190



CD0006



NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: E	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\141	REVISED: 10:24:49 02/19/2019	BY: ENBRIRO
MTL: -	© □	

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3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

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